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Proposed programme budget for the biennium 2010-2011

Administrative and budgetary aspects of the financing of the United Nations peacekeeping operations

Information and communications technology

Tenth report of the Advisory Committee on Administrative and Budgetary Questions on the proposed programme budget for the biennium 2010-2011

I. Introduction

1. The Advisory Committee on Administrative and Budgetary Questions has considered the following reports relating to information and communications technology:

(a) Revised estimates relating to the proposed programme budget for the biennium 2010-2011 under sections 28D, 29 and 36 related to the enterprise content management and customer relationship management systems and proposals for a unified disaster recovery and business continuity plan (A/64/477);

(b) First progress report on the enterprise resource planning project and revised estimates under section 28A of the proposed programme budget for 2010-2011 and under the support account for peacekeeping operations (A/64/380).

During its consideration of the reports, the Advisory Committee met with the Under-Secretary-General for Management and the Chief Information Technology Officer, as well as with other representatives of the Secretary-General, who provided additional information and clarification.

2. The reports are submitted pursuant to General Assembly resolution 63/262, by which the Assembly took action on a series of proposals for comprehensive reform of information and communications technology at the United Nations on the basis of the Secretary-General's proposals for an Organization-wide information and communications technology strategy, the establishment of an Office of Information and Communications Technology, the implementation of a new generation of enterprise systems and elements for strengthening information and communications

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technology disaster recovery and business continuity, as well as the related reports of the Advisory Committee (see A/62/477, A/62/510/Rev.1, A/62/793 and Corr.1 and Add.1, A/62/7/Add.31 and A/63/487 and Corr.1 and 2).

3. The overall strategy adopted by the General Assembly for meeting the Secretariat's information and communications technology needs over the next three to five years is to be implemented through three strategic Organization-wide programmes critical to the operation of the Organization, namely: (a) resource management for the needs of administrative groups in managing financial, human, physical and other resources; (b) knowledge management for addressing the needs of substantive and other departments in managing their unstructured information; and (c) infrastructure management for information and communications technology specialists in providing data centres, communications and help desks. The information and communications technology strategy is based on strong central leadership for the establishment and implementation of Organization-wide information and communications technology standards and activities and a decentralized approach to operations. In this context, the Office of Information and Communications Technology sets the overall strategic direction for the Organization, coordinates Secretariat-wide activities in the area of information and communications technology and manages the three strategic programmes. The Advisory Committee notes that enterprise content management and customer relationship management systems are implemented under the knowledge management and resource management programmes, respectively. Enterprise resource planning is the core system for delivering the resource management programme. The Committee notes the Secretary-General's intention to create information and communications technology architecture that can provide a coherent environment for the development and implementation of the Organization's information technology systems and integration of the three enterprise systems. Upon enquiry, the Committee was provided with an update on the status of implementation of the information and communications technology management framework, which is summarized in annex I to the present report.

II. Report on the enterprise content management and customer relationship management systems and proposals for a unified disaster recovery and business continuity plan

A. Enterprise systems

4. In the paragraphs below the Advisory Committee comments on issues related to both the enterprise content management and the customer relationship management systems. The Committee's observations on the specific aspects of each enterprise system are contained in the relevant sections.

5. In its resolution 63/262 (sect. II, para. 26 (e)), the General Assembly requested the Secretary-General to provide an update on the implementation of the enterprise content management and customer relationship management systems. In that resolution, the General Assembly also noted that the implementation of those systems was already in progress and that the Secretary-General had not made a full proposal at the time of their inception. The Advisory Committee had commented on this situation in its report A/62/7/Add.31 (paras. 15-29), noting that it would have

been appropriate for the Secretary-General to make a full proposal before launching the projects and acquiring the software for the enterprise content management and customer relationship management systems. However, not wishing to impede progress in the implementation of the projects, the Committee had recommended approval of the resources requested by the Secretary-General, while emphasizing the need for information to be provided to the General Assembly on the benefits expected and the full costs of the implementation, as well as the measures necessary to complete and maintain the systems (para. 29; see also A/63/487 and Corr.1 and 2, paras. 76 and 77). The Committee notes that in his report (A/64/477), the Secretary-General provides most of the information requested, including the overall context, goals, rationale and benefits expected from the implementation of the enterprise content management and customer relationship management systems throughout the United Nations Secretariat, as well as plans for the phased implementation of those systems and funding requirements for the biennium 2010-2011.

6. The proposed programme budget for the biennium 2010-2011 did not include a provision for the requirements related to the proposals contained in the Secretary-General's report. In this connection, the Advisory Committee recalls General Assembly resolution 62/236 (para. 9), in which the Secretary-General was requested to ensure the fullest possible picture of the Organization's requirements in future proposed programme budgets. The Committee has also emphasized the need to include in the proposed programme budgets estimates for requirements that are foreseeable at the time of budget preparation. **Given the adoption of General Assembly resolution 63/262 in December 2008, the Committee is of the view that the Secretary-General should have provided preliminary estimates on the requirements for the implementation of the enterprise content management and customer relationship management systems in the proposed programme budget for 2010-2011. The Committee expects that future proposed programme budgets will include requirements for all ongoing and envisaged activities, thereby enabling Member States to make informed decisions.**

7. In its resolution 63/262 (sect. II, para. 26 (e)), the General Assembly requested the Secretary-General to provide an update on the cost-sharing arrangements for the continued implementation of the enterprise content management and the customer relationship management systems. The Advisory Committee requested additional information on the rationale and the cost-sharing arrangements proposed for enterprise content management and customer relationship management, and enquired whether the cost-sharing formula approved for the enterprise resource planning (ERP) project could be applied to the funding for all enterprise systems. It was informed that the Secretary-General's proposal was to fund the initial implementation of the system from the regular budget and to charge projects clearly attributable to specific offices/departments according to their usage of the system. The Committee was also informed that the cost-sharing ratio applied to ERP is not being proposed for enterprise content management and customer relationship management owing to the uneven distribution of the benefits of those projects in the initial stages of implementation. The implementation of the enterprise content management and customer relationship management systems spans a multi-year period and involves several discrete sub-projects benefiting specific organizational entities, while ERP is a corporate system. However, the Secretary-General does not rule out the harmonization of the cost-sharing ratios for all enterprise systems once the foundational elements of enterprise content management and customer

relationship management have been implemented and if an equitable chargeback model can be established for apportioning costs on the basis of the number of users. **The Committee recommends that the Secretary-General be requested to explore such mechanisms and to report on this matter in the context of the proposed programme budget for the biennium 2012-2013.**

B. Enterprise content management

8. In section III of its resolution 63/262, the General Assembly recognized the benefits of the implementation of the enterprise content management system and requested the Secretary-General to continue to implement those applications throughout the Organization. The General Assembly also stressed that enterprise systems should be developed and implemented under the authority of the Chief Information Technology Officer in order to ensure a coordinated approach to the development of such systems (see also A/62/7/Add.31, para. 27).

9. The Secretary-General provides information on the benefits expected from the implementation of enterprise content management in terms of increased effectiveness and increased efficiency (A/64/477, paras. 23-26). The Advisory Committee requested further information on the quantitative and tangible gains expected from the implementation of enterprise content management, which is provided in annex II to the present report. The Secretary-General estimates that an annual economy of some 250 person-years in productivity gains could be expected, on the basis of an assumption that an average of 5 per cent of staff time at all levels is spent on searching for information, and that enterprise content management is deployed to 10,000 Secretariat staff. **The Committee notes that these estimates are based on a series of assumptions rather than on a detailed analysis. It is of the view that the Secretary-General should be requested to elaborate on the concrete efficiency gains expected from the implementation of enterprise content management in the context of the proposed programme budget for the biennium 2012-2013.** The Committee has commented more extensively on the issue in section III below, on enterprise resource planning.

10. In paragraphs 6 to 22 of his report, the Secretary-General describes the existing situation and sets out the goals, rationale and scope of enterprise content management. He indicates that the offices and departments of the United Nations generate vast quantities of unstructured information in the form of documents, records, website content, e-mail messages, images and audiovisual materials. A multitude of disparate approaches and technologies are utilized to produce, manage and distribute these materials, entailing considerable duplication and inefficiencies, as well as significant levels of expenditure. Furthermore, because of this fragmentation, staff and other stakeholders experience enormous difficulty in finding the information they need, resulting in loss of productivity and ineffectiveness. The Secretary-General states that this situation is unsustainable, in terms of both the Organization's ability to support the various systems utilized and the inefficiencies resulting from the lack of appropriate policies and tools for information management.

11. The Secretary-General indicates that enterprise content management will improve the Organization's ability to capture, analyse and share information, enhance access and usability of information resources and provide complete,

accurate and timely information to support decision-making. Typical enterprise content management systems comprise a series of modules, including document management, records management, digital assets management, Web content management and collaboration tools, as well as providing functions for capturing, storing, reusing, sharing, publishing, archiving and managing information. The Advisory Committee was informed that the enterprise content management system supports the implementation of United Nations rules and procedures related to record-keeping with respect to the creation, management and disposition of records, the classification of essential and non-essential information and security levels, thereby facilitating the control and tracking of records.

12. The Advisory Committee notes the key factors and prerequisites for the realization of the benefits of knowledge management, as well as the unique aspects and challenges related to the implementation of enterprise content management as outlined in paragraphs 34 to 36 of the Secretary-General's report. In addition to the establishment of a proper framework for the programme, the development of an appropriate communications and training strategy and the identification of suitable offices/departments and sponsors for the start-up of the programme, it will be necessary to ensure that specialized staff skills are available. These include specialized skills for managing information, content and change. Furthermore, if the expected benefits of enterprise content management are to be effectively realized, the sustained involvement and commitment of the stakeholders it is intended to service will be necessary. **The Committee urges the Secretary-General to ensure that the key success factors outlined in the report are met and that the related activities are completed satisfactorily.**

13. It is indicated in paragraph 18 of the Secretary-General's report that the Knowledge Management Service will plan and coordinate the approach for the deployment of enterprise content management, in cooperation with the departments and offices of the Secretariat, as well as in the field. Upon enquiry, the Advisory Committee was informed that the Knowledge Management Service had a staffing component of 15 established posts, of which 9 posts were required for supporting enterprise content management implementation and the remaining 6 posts for supporting the other activities of the knowledge management programme, such as the Official Documents System (ODS), the Intranet and the various Lotus Notes QuickPlace environments. The functions of the 9 posts involved in supporting enterprise content management are set out below:

(a) One D-1 Director with overall responsibility for the activities of the Service. It is estimated that two thirds of the activities of the post are related to enterprise content management;

(b) Two P-5 Chiefs of Section, responsible for ensuring overall coordination of the enterprise content management project, including collaboration activities;

(c) Two P-4 Project Managers, dedicated to the management track and the collaboration track;

(d) One P-3 Business Analyst, involved in the correspondence management initiative;

(e) One P-3 Change/Information Management Officer, involved in taxonomy, metadata and change management activities, including training;

(f) One P-3 Information Technology Officer providing support for infrastructure management;

(g) One P-2 Assistant Information Technology Officer, involved in collaboration and change management activities.

Implementation activities

14. The Advisory Committee notes that the system is to be implemented in incremental phases, including an initial foundational phase for establishing the core technical infrastructure, governance and the overall management procedures and guidance to enable a coordinated approach to enterprise content management. Many of the key functionalities of enterprise content management, such as document management and website management, are to be implemented in the second phase, with the deployment of specific enterprise content management modules at a duty station or office that has already developed a specific expertise in a given area. The Committee also notes that the implementation is to be undertaken as a partnership between the Office of Information and Communications Technology and the concerned department/office on the basis of jointly determined priority needs, organizational readiness and the availability of resources. In addition, partnerships among departments and offices that share common needs are to be set up so as to facilitate the extension of the deployment of tested enterprise content management modules. These first two phases are expected to be completed during the biennium 2010-2011. Future phases will focus on expanding the deployment of enterprise content management core modules for collaboration and the management of documents, records and Web content, as well as the management of digital and multimedia assets.

15. As indicated in paragraph 5 above, the implementation of enterprise content management is already under way. In paragraph 47 of his report, the Secretary-General indicates that full deployment of enterprise content management across the Organization will take up to five years. Upon enquiring as to the timeline of the implementation and the start of the five-year period, the Advisory Committee was informed that implementation activities had commenced in 2008 and would continue until 2013. With regard to the update on the activities related to the foundational phase (paras. 37 and 38), the Committee was informed that a framework for the implementation of enterprise content management had been established comprising the following elements:

(a) *An enterprise content management governance framework*. The implementation of enterprise content management is guided by the Working Group on Knowledge Management, which develops the strategic direction for the Secretariat's knowledge management programme, reviews proposed enterprise content management initiatives and monitors implementation status. The membership of the Working Group includes departments and offices at Headquarters and at offices away from Headquarters (the Department of Economic and Social Affairs, the Department of Field Support, the Department for General Assembly and Conference Management, the Department of Management, the Office of Central Support Services of the Department of Management, the Department of Political Affairs, the Department of Public Information, the Department of Peacekeeping Operations, the Office for the Coordination of Humanitarian Affairs, the Office of Information and Communications Technology; the Economic Commission for

Europe, the United Nations Office at Geneva, the United Nations Office at Vienna/United Nations Office on Drugs and Crime and the secretariat of the Chief Executives Board for Coordination) (see also annex I);

(b) *A road map for the implementation of enterprise content management.* The enterprise content management road map is shown in table 1 of the Secretary-General's report (A/64/477). It comprises 18 enterprise content management high-priority initiatives which were identified on the basis of interviews conducted with 10 United Nations departments/offices on their priority enterprise content management needs;

(c) *Global deployment architecture* for the hosting and deployment of enterprise content management systems worldwide, developed in coordination with the infrastructure management programme;

(d) *Enterprise content management policies and standards.* A compendium of standards, policies, guidelines and best practices related to content description and organization, including metadata and taxonomy, the classification of documents, information security, content types, website guidelines, formats, life cycles and workflow, has been compiled. The compendium is to be reviewed by subject matter experts and by the Working Group on Knowledge Management.

16. The implementation activities and expected results for the biennium 2010-2011 have been organized on the basis of the following five tracks, as summarized in table 1 of the Secretary-General's report:

(a) Two tracks related to project management and technical activities (foundational phase), as set out below:

(i) *The management track* ensures the overall coordination of the project. It involves implementing policies, procedures and standards, developing and implementing the change management programme and establishing partnerships to ensure consistent approaches and to avoid duplication of efforts;

(ii) *The infrastructure management track* ensures that the essential technical infrastructure is in place, including hardware and software, to support the availability and deployment of the various enterprise content management capabilities to all duty stations and peacekeeping missions;

(b) Three tracks for the delivery of a minimal set of information management capabilities needed by many operational units in the Secretariat, as set out below:

(i) *The collaboration track* includes various initiatives for introducing additional collaboration technologies, developing communities of practice and including a correspondence management tool in the Executive Office of the Secretary-General and other units, as well as initiatives for the peacekeeping guidance content repository and the automation of the peacekeeping report process;

(ii) *The content management track* includes initiatives such as the replacement of ODS and a records management programme;

(iii) *The Web content management track* includes initiatives for migrating the websites of the five regional commissions using a common template and

approach, and initiating work on the migration of the United Nations website to the enterprise content management platform.

17. The timeline for the planned project activities for the period 2010-2011 is provided in figure II of the report. **The Advisory Committee emphasizes the need for effective monitoring of the timeline and deliverables of the enterprise content management programme so as to ensure that the system is implemented within the time frame envisaged. The Committee also requests that information on the implementation plan, progress achieved and outstanding activities be provided in the context of the proposed programme budget for the biennium 2012-2013.**

Funding requirements

18. According to the Secretary-General, enterprise content management will support the entire Secretariat, including Headquarters, offices away from Headquarters, regional commissions and political and peacekeeping missions. He indicates that the full deployment of enterprise content management across the Organization represents a significant undertaking and that it will require up to five years of implementation, coordination, change management and training. Activities related to peacekeeping operations were provided for in the 2009/10 budget for the support account for peacekeeping operations (see para. 20 below).

19. As indicated in paragraph 49 of the Secretary-General's report, the funding requirements proposed are for the first two years of the enterprise content management implementation plan for United Nations Headquarters, offices away from Headquarters and regional commissions, representing the funding required to implement the core technical infrastructure, many of the key application capabilities and the overall management procedures and guidance to enable a coordinated approach to enterprise content management. The Secretary-General provides little information on the overall costs over the five-year span of the implementation of enterprise content management, the expenditures already incurred or the estimated costs for the maintenance of the system once it is fully deployed. **While the Advisory Committee understands that it may not be feasible to provide accurate estimates of future costs, it is of the view that data on the resources already engaged across all funding sources should have been provided, along with some information on the composition of the costs and the number of estimated users during the various phases of the implementation, distinguishing between initial costs for the acquisition of the software and infrastructure, estimated costs related to customization and training during the implementation and deployment of the system, recurring costs for software maintenance and licences and other requirements once the system is fully implemented.**

20. Upon enquiry, the Advisory Committee was provided with a summary of the resources provided for enterprise content management activities to date, with a breakdown by funding source, which is shown in annex III. The Committee notes that a total amount of $8,781,600 was approved by the General Assembly, comprising $2,000,000 under the regular budget, to be met from within the existing appropriation for the biennium 2008-2009 (resolution 63/262), and $6,781,600 under the support account for peacekeeping operations for 2009/10, comprising

$6,645,200 under information technology and $136,400 under general temporary assistance to provide for one P-3 position (resolution 63/287).

21. The Advisory Committee was further informed, upon enquiry, that a new suite of enterprise content management products, including 10,000 user licences, had been acquired in 2007 at a cost of $3,141,919, funded from within the regular budget resources approved under the Information Technology Services Division (section 28D) for the biennium 2006-2007. Annual maintenance charges for upgrades and support of the enterprise content management software amount to 20 per cent of the acquisition cost. The initial 10,000 user licences were acquired at a cost of $190 per user licence, which will be reduced as the total number of licences acquired increases ($175 up to 25,000 and $160 beyond 25,000 user licences). The Secretary-General has not acquired additional user licences in 2008-2009 and does not propose an increase in the number of licences for 2010-2011. The Committee was further informed that it is expected that all users of personal computers, potentially the Organization's 43,000 staff members, would ultimately use the enterprise content management system to create, search, find, preserve and dispose of relevant content.

Resource requirements for the biennium 2010-2011

22. As indicated in paragraph 5 of the Secretary-General's report, pending the conclusion of the structural review of information technology in the Secretariat and the consideration of possibilities for consolidating information and communications technology units and changes in the structure and staffing levels of the Office of Information and Communications Technology, the Secretary-General is proposing to provide the human resources required for the biennium 2010-2011 through general temporary assistance and contractual services. Any conversion of general temporary assistance positions and contractual resources to posts would be proposed for consideration by the General Assembly following the outcome of the structural review.

23. The overall estimated cost of the enterprise content management implementation plan for United Nations Headquarters, offices away from Headquarters and regional commissions under the proposed programme budget for the biennium 2010-2011 amounts to $14,548,300, broken down as follows:

(a) $3,218,800 under other staff costs to provide for 11 additional general temporary assistance positions for 24 months in the Knowledge Management Service, as follows:

(i) One P-4 Change Management Coordinator, responsible for the overall coordination of enterprise content management initiatives related to the management track;

(ii) One P-4 Knowledge and Content Management Coordinator, responsible for overall coordination of enterprise content management initiatives related to collaboration;

(iii) One P-4 Information and Content Management Coordinator, responsible for overall coordination of enterprise content management initiatives related to information and content management;

(iv) One P-4 Web Content Management Coordinator, responsible for overall coordination of enterprise content management initiatives related to Web content management;

(v) One P-4 Information Systems Officer, responsible for overall coordination of the enterprise content management infrastructure;

(vi) One P-3 Change Management Officer, responsible for the implementation of a change management programme;

(vii) One P-3 Knowledge and Content Management Officer, responsible for the implementation of a collaboration programme;

(viii) One P-3 Content Management Officer, responsible for the implementation of content management initiatives;

(ix) One P-3 Information Management Officer, responsible for the implementation of an information management programme;

(x) One P-3 Web Content Management Officer, responsible for the implementation of Web content management initiatives for the United Nations Secretariat;

(xi) One P-3 Information Systems Officer, responsible for technical support for website development.

(b) $269,500 for travel to cover requirements for trips to ensure overall management and coordination of enterprise content management deployment to all duty stations, including infrastructure development;

(c) $8,066,400 for contractual services to cover requirements for data processing services, software and storage services, including:

(i) $1,012,400 for projects related to the collaboration track for facilitating the work of cross-functional teams, improving process efficiencies, social networking and case and correspondence management;

(ii) $2,452,300 for projects related to content management initiatives for records management, the authoring of parliamentary documents, the migration of existing official documents, standardized publishing methods with workflow and collaboration integration;

(iii) $1,399,300 for projects related to Web content management, including the harmonization of regional commission and departmental websites, enterprise search and the replacement of iSeek;

(iv) $933,700 for services related to the implementation of enterprise content management infrastructure;

(v) $1,105,500 for software licences for the enterprise content management software;

(vi) $1,084,000 for storage and back-up services for enterprise content management-related content;

(vii) $79,200 for service-level agreement charges for telecommunications and technology for the general temporary assistance positions and consultants referred to above.

(d) $1,338,300 under general operating expenses to cover costs for the rental of premises, alterations and improvements, communications for the office and general temporary assistance positions and contractors detailed above and the maintenance of enterprise content management equipment;

(e) $22,000 to cover standard costs for supplies and materials;

(f) $1,633,300 under furniture and equipment, largely to provide for the acquisition of information and communications technology equipment to support enterprise content management at Headquarters, offices away from Headquarters and regional commissions, as well as additional software for Web content management and office and information technology equipment for the general temporary assistance positions and contractors detailed above.

24. The Secretary-General's proposals for an additional 11 positions (5 P-4 and 6 P-3) would more than double the current capacity of nine staff dedicated to the implementation of enterprise content management (1 D-1, 2 P-5, 2 P-4, 3 P-3 and 1 P-2). The 11 new positions requested include one P-4 and one P-3 for each of the five implementation tracks. Some of the functions of the additional positions requested build on existing capacity. For example, among the nine existing staff members, one P-5, one P-4, one P-3 and one P-2 are already involved or dedicated to collaboration activities and one P-5 and one P-4, as well as the D-1 Director, are involved in overall coordination of the enterprise content management implementation and the management track. Furthermore, the Advisory Committee notes that in resolution 63/287, the General Assembly provided resources under the support account for peacekeeping operations for 2009/10 for a number of enterprise content management initiatives, such as the enhancement of collaboration capabilities throughout field missions. The Department of Field Support has already acquired considerable experience and specialized skills in knowledge-sharing, collaboration and information management through initiatives such as the establishment of communities of practice and the deployment of best practices officers in peacekeeping missions.

25. With respect to the resources requested under contractual services, the Advisory Committee notes that nearly $6 million of the $8.1 million proposed is for activities related to collaboration, Web content and content management, while the remaining $2.1 million is for software, storage and support.

26. **The Advisory Committee is of the view that, rather than doubling the size of the Knowledge Management Service, maximum use should be made of existing capacity. It also believes that every effort should be made to draw upon the experience and skills available in house and to reassess requirements as the various enterprise content management implementation activities progress. Accordingly, the Committee recommends approval of 7 of the 11 positions (3 P-4 and 4 P-3) proposed for the Knowledge Management Service and a reduction of $1 million in the proposed $8,066,400 under contractual services. The Committee recommends approval of the full amount of the remaining proposals related to non-post resources.**

C. Customer relationship management

27. Customer relationship management is one of the components of the resource management programme. It is targeted towards the provision of day-to-day services for end-users in a variety of areas, such as information and communications technology support, administrative support for operations in human resources, travel services, payroll and insurance, as well as the provision of diverse services to Member States and agencies.

28. As indicated by the Secretary-General, each service delivery group operates independently of the other, thus increasing the risk of duplication, inefficiencies and higher costs arising from the maintenance of multiple service desks, as well as inconvenience for customers who have to deal with multiple service providers with different working procedures. The weaknesses of the current situation and the rationale for change are set out in detail in paragraphs 66 to 71 of the Secretary-General's report.

29. According to the Secretary-General, the objective of customer relationship management is to create an Organization-wide common service management framework based on an integrated system and a common set of policies and procedures. The main ongoing initiative of the customer relationship management project, entitled "iNeed", consists of standardizing the processes of service desks and consolidating the service desks using an enterprise solution. In the first phase of iNeed, the consolidation of information and communications technology and facilities management services is envisaged for an initial deployment by the end of 2009 in the Office of Information and Communications Technology, the Department of Field Support, the United Nations Logistics Base at Brindisi, Italy, the United Nations Interim Force in Lebanon, the United Nations Mission in Liberia and the United Nations Stabilization Mission in Haiti. Subsequently, over the next two to three years, the baseline product will be rolled out to offices away from Headquarters. In parallel, additional service types, such as travel, human resources management and conference services, are to be incorporated into the integrated system. In addition, a self-service portal will be implemented in 2010 for information and communications technology and facility services after the initial deployment at the end of 2009.

30. Further details on current project activities are provided in paragraphs 86 to 92 of the Secretary-General's report. The activities envisaged in 2010-2011 include:

(a) Operation, maintenance and stabilization of iNeed;

(b) Implementation of the self-service portal;

(c) Deployment of iNeed in five additional duty stations, which are to be determined before the end of 2009;

(d) Analysis of the next service type to be deployed using iNeed.

31. The Secretary-General affirms that customer relationship management will improve the quality and cost-effectiveness of services provided to end-users. He has identified a number of areas in which efficiency gains are expected and where there is potential for cost savings (paras. 77-85). The Advisory Committee notes that iNeed will automate current manual processes and replace the existing legacy systems that are used to manage service requests. Upon enquiry, the Committee was

provided with additional information on expected efficiency gains resulting from the automated processing of customer service requests, which is set out in annex IV.

32. The Secretary-General's analysis projects total estimated annual savings at between $5,776,000 and $12,180,000 once customer relationship management is fully deployed for information and communications technology and facilities services at Headquarters and offices away from Headquarters and for information and communications technology in all peacekeeping missions. He expects that savings will start accruing once self-service has been implemented. Additional savings could be expected when information and communications technology service desks outside the Department of Field Support and the Office of Information and Communications Technology have also migrated to the common customer relationship management platform. Once self-service has been implemented, savings resulting from the initial deployment of customer relationship management in mid-2010 are expected to range between $1,784,000 and $3,703,000 per year. The expected annual savings would range between $3,973,000 and $8,398,000 if the system is extended to five offices away from Headquarters in 2010-2011, and between $4,102,000 and $9,226,000 in 2012-2013 when information and communications technology service desks in all seven offices away from Headquarters have been implemented.

33. **The Advisory Committee considers that a quantitative analysis of the activities automated with the implementation of customer relationship management should be carried out so as to provide an objective basis for measuring the efficiencies actually realized. In view of the imminent implementation of the first phase of customer relationship management, by the end of 2009, the Committee recommends that the Secretary-General be requested to ensure that appropriate mechanisms are in place for gathering the necessary data before the systems are deployed. The Committee has commented more extensively on the issue of estimating and harvesting efficiency gains in section III below, on enterprise resource planning.**

Funding requirements

34. As indicated in paragraph 5 of the Secretary-General's report, pending the conclusion of the structural review of information technology in the Secretariat and the consideration of possibilities for consolidating information and communications technology units and changes in the structure and staffing levels of the Office of Information and Communications Technology, the Secretary-General is proposing to provide the human resources required for the biennium 2010-2011 through general temporary assistance and contractual services. Any conversion of general temporary assistance positions and contractual resources to posts would be proposed for consideration by the General Assembly following the outcome of the structural review.

35. In paragraph 96 of his report, the Secretary-General states his intention to build internal capacity for managing and supporting the deployment of customer relationship management and to reduce the Organization's reliance on external vendors. **The Advisory Committee is supportive of this approach and believes that in-house expertise should be developed with respect to the systems that support the core activities and needs of the Organization.**

36. The Secretary-General provides little information on the estimated overall costs over the five-year span of the implementation of customer relationship management, the expenditures already incurred or the estimated costs for the maintenance of the system once it is fully deployed. Upon enquiry, the Advisory Committee was informed that the yearly cost for software maintenance, hardware maintenance and information and communications technology personnel supporting the system was estimated to range between $35 and $40 per service recipient. Furthermore, the Secretariat expects the cost per service recipient to decrease as the system is deployed to additional offices and departments.

37. Upon enquiry, the Advisory Committee was provided with a summary of the resources provided for customer relationship management activities to date, which is contained in annex III. The Committee notes that a total amount of $4,360,900 was approved under the support account for peacekeeping operations for 2009/10, comprising $4,029,500 under information technology and $331,400 under general temporary assistance, to provide for one P-5 and one P-3 position (resolution 63/287).

Resource requirements for the biennium 2010-2011

38. The overall resources requested for the ongoing implementation of customer relationship management for the biennium 2010-2011, including iNeed maintenance, the development of the self-service portal and the deployment of iNeed to five information and communications technology and facility service desks at offices away from Headquarters, amount to $4,433,000, broken down as follows:

(a) $1,286,800 under other staff costs to provide for five additional general temporary assistance positions as follows:

(i) One P-4 Application Administrator to lead the management of the application infrastructure design and implementation;

(ii) Two P-3 Customer Relationship Management Business Analysts to work with business communities to perform process gap analysis, functional flow design, functional usability documentation, application testing and user communication activities;

(iii) Two P-2 Developers to assist with the technical design and specifications documentation;

(b) $70,000 under official travel to provide for trips to offices away from Headquarters to conduct business workshops and user training;

(c) $2,419,200 under contractual services, mostly for customer relationship management expert services ($2,001,600) to augment the existing staff capacity in project management, user training and data migration activities. The remainder ($417,400) would provide mainly for storage and backup services;

(d) $440,400 under general operating expenses to provide for the rental of premises ($286,000), alterations and improvements ($83,000), communications ($39,000) for the office and general temporary assistance positions and contractors detailed above, and the maintenance of customer relationship management equipment ($32,400);

(e) $5,000 to cover standard costs under supplies and materials.

39. **The Advisory Committee is of the view that further efforts should be made to fully utilize in-house capacity in the implementation of customer relationship management functions. It therefore recommends approval of (a) four of the five additional general temporary assistance positions proposed (1 P-4, 1 P-3 and 2 P-2); and (b) a reduction of $500,000 in the $2,001,600 proposed for expert services under contractual services. The Committee recommends approval of the full amount of the remaining non-post resources proposed.**

D. Proposals for a unified disaster recovery and business continuity plan

40. In its resolution 59/276 (sect. XI, para. 47), the General Assembly requested the Secretary-General to submit a technical study on information and communications technology security, business continuity and disaster recovery, with detailed costing and a timetable. The Secretary-General submitted proposals for a global operational framework in that regard in his report on information and communications technology security, disaster recovery and business continuity for the United Nations (A/62/477). However, some of those proposals have been superseded as a result of subsequent events and the emergence of new requirements, in particular the establishment of a central business continuity management unit to address business continuity issues on a broader, Organization-wide basis, taking into account pandemic planning and other non-information and communications technology aspects (see A/64/472 and A/64/7/Add.8), as well as the requirement for a new secondary data centre in the context of the relocations due to the capital master plan (see A/64/346/Add.1).

41. In its resolutions 63/262 and 63/269, the General Assembly provided guidance for the development of new proposals for a unified approach to robust disaster recovery and business continuity, and requested the Secretary-General to:

(a) Undertake a classification of critical and non-critical systems of the Secretariat and provide to the General Assembly an inventory of systems classified according to their degree of criticality at the time of its consideration of the proposal for a permanent secondary data centre for United Nations Headquarters;

(b) Prioritize systems to minimize the cost of disaster recovery and business continuity;

(c) Consolidate systems in central data centres to strengthen disaster recovery and business continuity and minimize the size of local primary and secondary data centres;

(d) Ensure the use of enterprise data centres rather than local data centres as far as possible;

(e) Re-engineer systems to support the long-term goal of managing data recovery and business continuity in system-wide enterprise data centres and where, from a long-term perspective, it is more cost-effective than hosting them in local data centres;

(f) Fully explore the possibilities for consolidating and using the most reliable and cost-effective solution for data storage, business continuity services and hosting of enterprise systems;

(g) Ensure that the level of protection proposed for systems has been subject to a thorough cost-benefit analysis.

The Secretary-General is to submit to the General Assembly a unified disaster recovery and business continuity plan, including a permanent solution for Headquarters in the context of the proposed programme budget for the biennium 2012-2013 (see resolution 63/262, sect. IV, para. 12; see also para. 48 (f) below).

42. In his report (A/64/477), the Secretary-General focuses on the realignment of the proposals contained in his earlier report (A/62/477) with the above-mentioned guidelines and principles, as well as with the work being carried out by the Business Continuity Management Unit on business continuity and on pandemic planning. The Advisory Committee notes that the Unit addresses the planning needed to ensure that the Organization can continue its critical functions under all circumstances, while the information and communications technology disaster recovery programme deals with planning for the resumption of information and communications technology infrastructure and services after a disruption that adversely impacts critical business functions (A/64/477, paras. 104-106).

43. The Secretary-General also sets out a high-level strategy and objectives for disaster recovery (paras. 120-129). The Advisory Committee notes that the information and communications technology disaster recovery plan will address only critical systems and communications and that recovery activities will be conducted in a phased approach, with an emphasis on efficiency and effectiveness, using existing information and communications technology infrastructure and facilities. The Secretary-General further proposes the establishment of two enterprise data centres in geographically diverse locations, namely, Brindisi, Italy, and a second site yet to be determined. Both facilities will host mission-critical enterprise systems and services for the Secretariat and provide a range of backup and fail-over capabilities in support of disaster recovery and business continuity operations. The Committee also notes that the Secretariat proposes to adopt international standard 24762 of the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC 24762) (guidelines for information and communications technology disaster recovery services) as the basic framework for the development of a unified disaster recovery and business continuity plan (paras. 109-118).

44. The activities to be undertaken in connection with the development and implementation of the unified disaster recovery and business continuity plan are described in paragraphs 130 to 136 of the report. Key activities include:

(a) A study to be conducted for the classification and prioritization of information and communications technology systems, including a business impact analysis to be carried out by the Business Continuity Management Unit at 12 duty stations for determining the extent to which local primary and local secondary data centres are required at each duty station, as well as their size and scope;

(b) An upgrade of the data centre infrastructure at the United Nations Logistics Base at Brindisi, Italy, for site recovery and data protection.

45. Upon enquiry, the Advisory Committee was informed that the information gathered in the context of the above-mentioned study on classification, prioritization and business impact would be utilized to determine factors such as the acceptable period of downtime that could be incurred for each system and the level of

protection to be provided. In general, the costs of protecting systems against failures are inversely proportional to the length of the acceptable downtime period. These factors would also be used in cost-benefit analyses when evaluating the costs of protection against the risks to be mitigated. In this context, the role of departments in the prioritization of systems will be to provide objective input as to their critical business processes. The Committee was further informed that the Office of Information and Communications Technology and the Business Continuity Management Unit would work closely with departments in identifying and prioritizing the functions and the supporting processes, taking into account the relative costs and effectiveness of alternate options for disaster recovery, including information and communications technology systems. **The Committee emphasizes the need to ensure that disaster recovery requirements are based on objective needs and that the most cost-effective solutions are fully explored.**

46. The Advisory Committee recalls that in resolution 63/262 (sect. IV, para. 13), the General Assembly requested the Secretary-General to fully explore the possibilities for consolidating and using the most reliable and cost-effective solution for data storage, business continuity services and hosting of enterprise systems, drawing on the experience of other United Nations entities and global developments in information and communications technology, and to report to the General Assembly on the matter. **The Committee trusts that the Secretary-General is exploring all such options and will report to the General Assembly on the results of his review and provide justification as to the cost-effectiveness of the sites selected for hosting the enterprise data centres.**

47. The overall resources requested for the biennium 2010-2011 in relation to the development of a unified information and communications technology disaster recovery and business continuity plan are as follows:

(a) $384,000 under other staff costs to provide general temporary assistance for a P-5 Senior Disaster Recovery Officer at Headquarters to manage the activities associated with the proposed framework programme and to maintain a Secretariat-wide coordinated approach;

(b) $108,600 to provide for travel for two specialists to each duty station to assess and collect data during phase 1 of the project;

(c) $2,830,900 under contractual services, including:

(i) $1,700,000 for professional services, including $1,200,000 for the conduct of a business impact study and a risk assessment study in each of the 12 duty stations, at $100,000 per duty station, and $500,000 for the reformulation of the disaster recovery strategy and the definition of global architecture for implementing a unified disaster recovery and business continuity plan;

(ii) $1,127,300 to provide for ongoing operation of the enterprise data centre at the United Nations Logistics Base at Brindisi, Italy, for a service-level agreement to cover the costs of maintenance of equipment and services.

The Advisory Committee recommends approval of the Secretary-General's proposals related to the unified disaster recovery and business continuity plan.

E. Conclusions and recommendations

48. **In paragraphs 149 (a) to (f) of his report (A/64/477), the Secretary-General sets out a series of requests of the General Assembly. The Advisory Committee's recommendations are as follows:**

(a) **The Committee recommends that the General Assembly note the proposals and approach described in the present report for the implementation of enterprise content management, customer relationship management and business continuity and disaster recovery planning;**

(b) **Taking into account its recommendations in paragraph 26 above, the Advisory Committee recommends approval of $11,947,900 for the continuation of the enterprise content management project for the biennium 2010-2011;**

(c) **Taking into account its recommendations in paragraph 39 above, the Advisory Committee recommends approval of $3,563,900 for the continuation of the customer relationship management project for the biennium 2010-2011;**

(d) **Taking into account its recommendations in paragraph 47 above, the Advisory Committee recommends approval of $3,392,300 for undertaking the development of a unified disaster recovery plan and for maintaining the Brindisi enterprise data centre for the biennium 2010-2011;**

(e) **Taking into account its recommendations in subparagraphs (b) to (d) above, the Advisory Committee recommends that the General Assembly approve a total amount of $19,421,900 gross ($18,904,100 net) for the biennium 2010-2011 under section 28D, Office of Central Support Services ($1,190,800) and section 29, Office of Information and Communications Technology ($17,713,300); and section 36, Staff assessment ($517,800), to be offset by a corresponding amount under income section 1, Income from staff assessment, of the proposed programme budget for the biennium 2010-2011;**

(f) **The Advisory Committee recommends that the General Assembly note that comprehensive plans on disaster recovery and business continuity for Secretariat entities, including requirements for the maintenance and monitoring phase of the information and communications technology disaster recovery plan, will be submitted for consideration in the context of the proposed programme budget for the biennium 2012-2013.**

III. First progress report on the enterprise resource planning project

49. The first progress report on the enterprise resource planning project is submitted pursuant to General Assembly resolution 63/262, in which the Secretary-General was requested to report to the Assembly at the main part of its sixty-fourth session on the enterprise resource planning (ERP) project, including an assessment of the organizational arrangements; a revised enterprise resource planning project implementation plan and updated budget; an updated business case with details on tangible and measurable efficiency and productivity gains to be achieved through the implementation of ERP as well as benchmarks for measuring progress and the

anticipated return on investment; and options for a reduced enterprise resource planning package at lower cost.

50. In its report for the biennium ended 31 December 2007, the Board of Auditors noted that the enterprise resource planning project was one of the main drivers to make the overall management of the Administration more modern and uniform (A/63/5 (Vol. I), para. 125). The Committee has also emphasized the potential of ERP to transform and modernize administrative functions and streamline working methods across the Organization. In his current report (A/64/380) the Secretary-General further emphasizes the role of ERP in facilitating and enabling administrative reforms.

A. Benefits and efficiency gains

51. In section II of his report (A/64/380), the Secretary-General makes a detailed presentation of the benefits that are expected from the implementation of the enterprise resource planning project, with a view to making a business case justifying the investment in ERP. The Secretary-General indicates that the benefits analysis was conducted according to a structured methodology, on the basis of consultative visits to multiple duty stations, the collection of data for each functional area from current systems, cross-checking against industry benchmarks, and extensive validation of data and assumptions by users and the Enterprise Resource Planning Steering Committee.

52. The analysis of qualitative benefits builds on the elements presented in section III.B of the report of the Secretary-General on enterprise systems for the United Nations Secretariat worldwide (A/62/510/Rev.1) and sets out in some detail the advantages to be expected in terms of improved accountability; enhanced transparency; strengthened internal controls across the broad range of financial, procurement and staffing processes; improved consistency in the application of rules and operating procedures in all administrative disciplines; reporting; and higher client satisfaction. The system will also allow for the integration of human resources management, payroll and finance functions under a shared system for all United Nations personnel. The close integration of supply chain functions will improve operational effectiveness and timeliness. In the area of finance, the ERP system will enable compliance with the International Public Sector Accounting Standards (IPSAS). In addition, the Secretary-General indicates that the interconnection between ERP systems facilitates the implementation of data replication procedures, thereby providing inherent disaster recovery and business capabilities.

53. . The Committee notes that the integrated system is intended to provide a single source of complete, reliable and timely information on human, financial and physical resources. It emphasizes the importance of fully exploiting this information to provide improved and more accurate reports to support management decision-making. The Committee trusts that the system will further support decision-making by linking programmes and operations to resources, and respond to the needs of Member States in reviewing administrative and budgetary proposals. Furthermore, the system should facilitate access to reports by United Nations staff and Member States. Upon enquiry, the Committee was informed that ERP implementation covers all functionalities, including programme management, results-based management and risk management.

54. The Secretary-General has also identified expected productivity and efficiency gains[1] in each functional area by type of activity, and has translated those gains in terms of a high and a low range of savings in staff time, consolidated as full-time equivalents, and converted to financial values using the average cost of the full-time equivalents performing those tasks (see A/64/380, annex I). According to the Secretary-General, the estimated annual aggregate efficiency and productivity gains, expressed in financial terms, range between $134 million and $224 million, or 705 to 1,180 full-time equivalents.[2] He states that the gains will occur once the system is fully deployed and stabilized, and will accrue progressively, over time, subject to the conditions set out in paragraphs 52 and 53 of his report. Those conditions include the continued support of all stakeholders and the application of established best practices in areas such as user education, the transfer of knowledge from specialist external resources to United Nations staff, quality assurance and communications.

55. **The Committee notes the efforts made to carry out this first quantitative analysis of potential productivity and efficiency gains, in response to the General Assembly's request for the identification of tangible and measurable efficiency gains arising from the project (resolution 63/262, sect. II, para. 11).** It notes the opportunities for such savings through the automation of heavily manual tasks in areas such as the processing of entitlements (415 FTE) and accounts payable (114 FTE). The Secretary-General states that the productivity gains do not represent or suggest a net decrease in posts or savings in staff costs, but rather, a potential to redirect resources towards higher priority tasks, to compensate for gaps in current processes. **The Advisory Committee considers that a more systematic and detailed approach to harvesting efficiency gains is required. The Secretary-General should strengthen his analysis and identify administrative resources that can be released as a result of the implementation of the ERP project. It points out that it would be up to the General Assembly to decide on the disposal of those resources. The Committee emphasizes that, in an organization such as the United Nations, in which administrative functions constitute a significant share of the overall activity, administrative reform should lead to reduced administrative burdens and costs.**

56. In this connection, the Committee notes that workforce planning is being introduced Secretariat-wide during the biennium 2008-2009 in order to undertake a more strategic, proactive and planned approach to human resources management (A/64/267). In its related report (A/64/518), the Committee has recommended that the Secretary-General, inter alia, make use of strategic workforce planning techniques to provide a clearer picture of ongoing functions, as well as an estimate of how many staff members in the major occupational groups are required to ensure the effective implementation of the Organization's mandates. The workforce planning exercise should also be used to determine the critical skills and competencies that will be required to align the Organization's staffing structure with

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[1] In paragraph 32 of his report, the Secretary-General states that productivity measures output per unit of labour: by eliminating or reducing time currently spent on administrative tasks, opportunities will be created for United Nations staff to focus on more value-added activities across the Organization. Efficiency is a measure of how well inputs are converted to outputs and can be measured as the reduction in cost for the delivery of the same service at the same level of quality.

[2] At an average annual cost of $190,000 per full-time equivalent.

programmatic goals and the evolving needs of the Organization, taking into account the impact of the implementation of the enterprise resource planning project on the nature of administrative activities to be performed, including the low-value activities that will become redundant and the high-value tasks that may require new skills. Furthermore, the significant number of retirements in the next five years provides an opportunity for reviewing and aligning the staffing structure to the needs of the Organization, in the light of the modernization of administrative functions which will result from the full deployment of the ERP system.

B. Project governance

57. An assessment of organizational arrangements is provided in paragraphs 64 to 69 of the report. The Secretary-General indicates that the current arrangements provide an effective structure for the management of project activities and timely decision-making. The Committee reaffirms its view that there is a need for clear lines of responsibility and accountability for the overall project. In its previous report on information and communications technology (A/63/487, paras. 52-53) the Committee had also stressed that, in view of the impact of the implementation of ERP on work processes, roles and responsibilities, its implementation should be viewed primarily as a business project and that it was therefore understandable that the Chairperson of the ERP Steering Committee (the Under-Secretary-General for Management) should have overall responsibility for the project.

58. The Committee notes that since the issuance of its previous report, membership of the project Steering Committee has been expanded to include unrepresented organizational and geographic entities. It was further informed that user committees with an advisory role are to be established at offices away from Headquarters so as to ensure appropriate involvement of user departments during the planning and implementation of ERP. **The Committee considers this to be a positive step. It is of the view that the composition of the Steering Committee, as reflected in annex VI to its report (A/63/487), is heavily tilted towards service providers and that increased representation of user departments is desirable. Furthermore, the Advisory Committee considers that, as one of the largest entities of the Secretariat, the Department for General Assembly and Conference Management should be represented in the ERP governance structure, and requests that consideration be given to extending membership of the ERP Steering Committee to that Department.**

C. Implementation strategy

59. The Secretary-General indicates in paragraph 57 of his report, that the implementation of ERP projects is usually broken down into four major phases: (i) preparation, during which the project structure and team are set up, service providers and tools are selected, operational requirements are collected and analysed, opportunities for improvement are evaluated and existing business processes and systems are documented; (ii) design, during which a blueprint for the future solution is established and a detailed implementation plan for the subsequent phases is developed; (iii) build, during which the organization's solution is configured into the standard software according to the blueprint, the system is thoroughly tested, the technical infrastructure is implemented and the user

community is trained; and (iv) deployment, during which the organization transitions to the new working methods and systems, which itself is performed in several phases.

60. In paragraph 82 of his report, the Secretary-General sets out the major cost drivers of ERP implementation. Some of the key elements to be considered in developing an implementation strategy are the range of functions to be covered, whether they are introduced simultaneously or in phases and the number of deployments for rolling out the new system to all locations.

61. The Secretary-General's previous proposals on the ERP implementation strategy (A/62/510/Rev.1, paras. 40-45) suggested that the ERP project would be designed, built, tested and deployed in two waves: the first to be completed over a 30-month period by the end of 2010, for the core finance, human resources, procurement and asset management functions required for compliance with the International Public Sector Accounting Standards (IPSAS); and a second wave over a 24-month period for design-build-test-deployment of the remaining functions, such as results-based management, risk management, transportation and travel. The Secretary-General explains that, following an analysis of the ERP software and the United Nations high-level business processes, as well as the experiences of other organizations having implemented ERP projects, it was determined that this implementation approach entails additional costs.

62. The Committee notes that the report of the Secretary-General does not provide a detailed analysis of the consideration given to the General Assembly's request for options for a reduced ERP package at lower cost (resolution 63/262, sect. II, para. 26 (g)). Upon enquiry, the Committee was informed that there was no realistic opportunity to reduce the scope of the ERP project. The project addresses the management of resources in four functional areas: human resources, finance and budget, supply chain/logistics/procurement and central support services. The Secretariat conducts its work in each of these areas. If any of these four functional areas were not to be covered by ERP, separate systems would be required for the management of those resources. Further, given the tight interdependence between data related to each functional area, for example, staff and payroll, procurement and accounts receivable, it would be necessary to put into place mechanisms for exchanging data between the different systems being maintained.

63. Concerning the possibility of phased implementation of the various functionalities, the Committee was informed that the Secretariat's analysis determined that this would be among the most costly and least effective approaches, because it would entail: (a) a high redundancy of major, resource-intensive tasks, such as testing and training; (b) the need to develop a far greater number of interfaces with existing systems than in any other scenario; (c) the slowest decommissioning of existing systems; (d) the longest overall duration; and (e) the slowest time-to-benefit realization due to the longer period required for the implementation of full integration. In addition, the Secretary-General determined that this option was ill-suited to addressing the particular challenges in peacekeeping in the short or even medium term. The "IPSAS first" and "by function" options are based on a phased introduction of functionalities and are discussed in paragraphs 85 and 86 of the Secretary-General's report (see also table 3 of that report).

64. The Committee was informed that, in view of the absence of a viable option for reducing the scope of the implementation of ERP, the Secretary-General had examined alternative deployment scenarios, in which the complete ERP system, with all functionalities, would be developed, and then deployed in stages to the entire Organization. The Secretary-General proposes, the "Pilot first" deployment option, which as its name suggests, consists of a small-scale initial deployment of the complete ERP system in a fully operational but contained environment, followed by deployment to the rest of the Organization in two phases, after the system is tested and stabilized. The arguments in favour of this option are presented in paragraph 84 of the report. The Secretary-General concludes that costs will be best contained and risks mitigated if the complete system is first designed and built, and then deployed Secretariat-wide in an incremental approach. This recommended option projects implementation of the pilot in the fourth quarter of 2011 and Organization-wide deployment by the third quarter of 2013. The Committee notes that the timeline of the IPSAS implementation project will have to be adjusted to synchronize with the revised timetable for the deployment of ERP.

65. The Committee notes the explanations and analysis provided to it, upon enquiry, concerning the cost drivers and the factors which determine the level of cost-effectiveness and risk-aversion of each option. In the Committee's view, the Secretary-General could have provided more detailed information in his report on his analysis of the various alternatives, as well as the costs and benefits of each option.

D. Linkages to other systems

66. In paragraph 63 of his report, the Secretary-General provides information on a number of related initiatives being implemented concurrently with ERP within the United Nations Secretariat and missions, including: IPSAS implementation, the talent management system (recruitment and staffing), Lean Six Sigma (non-systems process improvement), enterprise content management and customer relationship management, as well as a fuel management system and a rations management system for peacekeeping functions. The Committee notes that the ERP team will continue to work closely with the various project teams throughout the design phase and beyond to avoid duplication of effort and ensure harmonization of processes and platforms.

67. The Committee requested additional information on the main functions within each of the four major functional areas of enterprise resource planning (finance and budget; human resources; supply chain; central support services), with an indication of those that are to be linked to other information systems and those that are to be provided through systems other than ERP. That additional information is provided in annex V to the present report. The Committee notes from the additional information that the definitive list of the functions to be provided by ERP could only be confirmed after the design phase is completed.

68. The Committee emphasizes the need to ensure that the core functions for the management of financial, human and physical resources are integrated into the ERP system. The use of different systems to provide such core functions will generate additional costs for the integration of those systems and the development of customized interfaces to exchange and merge data between systems, which will then

need to be updated and aligned as the systems evolve (see also paras. 62-63 above). The Committee points out that the lack of integrated, coherent information is a major weakness of the current information and communications technology environment, which impedes the Organization's ability to manage its resources effectively and Member States' ability to make informed decisions, and which was also a key factor leading to the decision to replace the Integrated Management Information System (IMIS). Furthermore, systems and processes for functions such as staff selection and budget preparation are heavily manual and time-consuming, and present major inefficiencies in terms of the time and the number of staff required to accomplish those functions (see A/63/487, para. 46; A/64/7, paras. 44 and 49).

69. **The Committee recommends that the ERP Steering Committee identify and review all systems providing core functions for the management of human, financial and physical resources, and that the implementation of such systems be closely coordinated with the ERP project team, with a view to ensuring that the current fragmentation of systems is not perpetuated. Furthermore, future ERP annual progress reports should include information on interfaces and linkages with other systems. The Committee also requests that a comprehensive picture be provided in the context of the annual progress report, of the business process improvements and benefits expected through the implementation of systems for the management of human, financial and physical resources.**

E. Project status

70. Information on the status of the project and on the activities completed thus far is provided in paragraphs 56 to 62 of the report. The Committee notes that the preparatory phase has been completed and that several key outputs were delivered in July 2009, including finalized documentation on current processes, an inventory of existing systems, the outcome of high-level design workshops involving over 220 subject matter experts from key offices, duty stations and missions, costing models for different implementation scenarios, a comparative analysis of implementation strategies and scenarios, and a comprehensive business case.

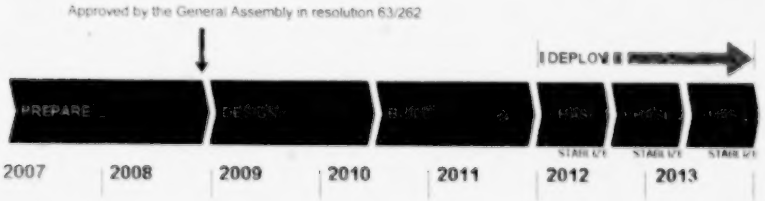
71. The design phase commenced in May 2009 and is ongoing. The Secretary-General states that the project is running behind schedule owing to insufficient funding. It is expected that the design phase will be completed in the second quarter of 2010, rather than in the early part of that year, as planned. Upon enquiry, the Committee was provided with details on the status of expenditures related to the sum of $20 million provided by the General Assembly for the ERP project for the biennium 2008-2009 (see resolution 63/262). As of the end of September 2009, expenditures totalled some $15 million, including $7 million for contractual services and $4.3 million for other staff costs, as shown in table 1.

Table 1
ERP project expenditures

Object of expenditure	*As of 30/09/2009*
Other staff costs	4 271 394
Consultants	529 010
Travel	714 707
Contractual services	6 999 352
General operating expenses	1 738 353
Supplies and materials	4 730
Furniture and equipment	745 916
Total	**15 003 462**

72. The Secretary-General's report does not provide a timeline for the ERP project. Upon enquiry, the Committee was provided with figure 1 below, showing the time frame for the completion of the four phases of the project over the period 2007-2013. **The Committee considers that an overview of the functional and geographical scope of the project, as well as a more detailed timeline, should be provided in future progress reports, showing, for each of the four phases of the project, the key activities, milestones and project deliverables, as well as the dependencies between the major activities. In order to bring some clarity to the accomplishments of the preparatory phase, information on the activities already completed should also be included in the timeline. The Committee considers that an overview of the level of resources required for each key activity should also be provided, such as the number of work months of project staff, subject matter experts and consultants, and other costs, such as for travel. In view of the fact that the Secretary-General will be reporting to the General Assembly on an annual basis over the duration of this multi-year project, it is important to establish a baseline for the project at the outset, which can then be updated in future annual progress reports, so as to provide a clear picture of the project plan, the progress made, outstanding activities and the utilization of resources.**

Figure 1
ERP project time frame



F. Overall project budget

73. The overall resource requirements for the implementation of the ERP project in the Secretariat over a five-year period are estimated at $315,792,300 at current

market rates, without provision for contingency. The financing of the ERP project is to be shared among the main sources of funds on the basis of the formula endorsed by the General Assembly in its resolution 63/262 (sect. II, para. 23) and applied in 2008-2009, as follows: 15 per cent from the regular budget, 62 per cent from the peacekeeping support account and 23 per cent from the special accounts for programme support costs.[3] An indicative summary of net resource requirements for ERP by source of funds is provided in table 2.

Table 2
Summary of net resource requirements by source of funds
(Thousands of United States dollars)

Source of funds	*2008-2009*	*2010-2011*	*To end of project 2013*	*Total*
Regular budget	5 110.0	24 192.2	18 066.6	47 368.8
Peacekeeping support account[a]	7 050.0	114 065.9	74 675.3	195 791.2
Extrabudgetary	7 840.0	37 090.1	27 702.1	72 632.2
Total	**20 000.0**	**175 348.2**	**120 444.1**	**315 792.3**

[a] For 2008-2009, the amount relates to the peacekeeping period from 1 July 2008 to 30 June 2009.

74. Table 3 provides a breakdown of the requirements by object of expenditure. A further breakdown of the resource requirements by object of expenditure under each source of funds is provided in annex VI.

Table 3
Summary of net resource requirements by object of expenditure
(Thousands of United States dollars)

Object of expenditure	*2008-2009*	*2010-2011*	*2012 to end of project*	*Grand total*
Posts	—	22 729.9	28 312.1	51 042.0
Other staff costs	8 893.3	19 440.0	19 439.0	47 773.3
Consultants and experts	—	3 331.2	3 331.2	6 662.4
Travel of staff	1 071.2	7 446.8	16 064.7	24 582.7
Contractual services	7 820.8	89 098.6	31 585.6	128 505.0
General operating expenses	1 285.0	11 625.7	7 681.4	20 592.1
Supplies and materials	23.5	146.0	146.0	315.5
Furniture and equipment	906.2	21 530.0	13 883.1	36 319.3
Total	**20 000.0**	**175 348.2**	**120 444.1**	**315 792.3**

[3] Overhead income generated by expenditures relating to technical cooperation, general trust funds and reimbursement for administrative support provided by the Organization to extrabudgetary entities, such as UNDP and UNICEF, is credited to the special accounts for programme support costs.

75. The Committee was informed that the resource distribution by object of expenditure under each source of funds, as shown in table 2 above, reflected the indicative distribution on the basis of proportionate share of the total. The General Assembly authorized the Secretary-General to establish a multi-year special account to record income and expenditures for this project (see resolution 63/262, sect. II, para. 25). Under this arrangement, the resources from each funding source will be sought under a single object of expenditure, "Grants and contributions", and accordingly reported as such to the General Assembly. The resources approved by the General Assembly from the respective funding source will be managed as a whole in a separate consolidated account where detailed expenditures by object of expenditure will be maintained. Under the regular budget, the resources for ERP are reflected in the form of a lump-sum provision under grants and contributions in the programme support component under section 28 A, Office of the Under-Secretary-General for Management, of the proposed programme budget.

76. The Committee notes that the Organization has concluded contracts for strategic advisory services and the design phase, and that negotiations for the ERP software are ongoing (see A/64/380, para. 71). Requests for proposals for integration services for the subsequent phases of the project are under preparation. The overall estimate for the project has therefore not been established on the basis of firm contract costs for software and all system integration services, but represents an estimate of the cost of the implementation and deployment of the ERP system, taking into account current market pricing, the ERP project costs of other United Nations organizations and advice sought from industry sources. The Committee notes that costs for software integration services and customization will be known only once the business process re-engineering phase has been completed and specific customization requirements have been identified and formalized.

77. An explanation of the changes in costs as compared to those in document A/62/510/Rev.1 is provided in paragraphs 105 to 108 of the Secretary-General's report. He indicates that the overall estimate now includes a provision for start-up operational costs that were not included in the estimate provided previously in document A/62/510/Rev.1 because they are strictly operating costs and not project costs. The Committee was informed that the start-up costs are related to the establishment of an operational environment for installation of the ERP software, to be used by the project team during the design, build and deployment phases for configuration, testing and training purposes, and will also serve as the platform for the deployment of the system to the pilot departments. Upon enquiry, the Committee was provided with the breakdown of the start-up operational costs, as set out in table 4.

Table 4
ERP start-up operational costs

Description	*2010-2011*	*2012-2013*	*Total*
Production, hardware, software and maintenance	10 679 700	6 459 300	17 139 000
Posts and other staff costs	2 438 900	10 555 400	12 994 300
Travel for support	4 620 000	4 046 700	8 666 700
Total	**17 738 600**	**21 061 400**	**38 800 000**

78. The Secretary-General indicates that, taking into account lessons learned from other entities having implemented ERP systems, as well as from the detailed analysis carried out during the design phase, the estimated costs for the project have been adjusted with respect to the resource requirements of the ERP project team, the subject matter experts, training and customization of the ERP software.

ERP project team

79. The Secretary-General proposes to develop in-house and institutional knowledge and capacity to support the system once it is launched, as well as to reduce the Organization's dependence on high-cost consultants. He indicates that since the previous report, a comprehensive and in-depth analysis of the project scope and planning was conducted by the ERP team and the specialist systems integrator, which showed that the core ERP project team of 44 positions was insufficient to address the requirements of the ERP project activity, taking into account the complexity of the work to be accomplished, as well as timing and logistical considerations, and furthermore that the lack of adequate staffing would expose the project to unnecessary risks. Without additional resources, cumulative knowledge would become vested with external consultants and would be lost to the United Nations once the project is concluded. Moreover, it would be neither efficient nor effective to entrust responsibility for implementation in functional areas to external specialists who do not have a good knowledge of the United Nations. **The Committee recognizes the need to develop in-house expertise and knowledge of the ERP system.**

80. In view of the above, the Secretary-General proposes to strengthen the ERP project team with an additional 36 temporary posts. The proposed staffing of the project team is summarized in table 5. A revised organigramme of the ERP project is provided in annex III to the Secretary-General's report.

Table 5
Post requirements

Grade	*2008-2009*	*2010-2011*	*2010-2013*
Professional category and above			
D-2	1	—	1
D-1	6	—	6
P-5	12	5	17
P-4/3	18	25	43
P-2/1	—	1	1
Subtotal	**37**	**31**	**68**
General Service category			
Principal level	—	1	1
Other level	7	4	11
Subtotal	**7**	—	—
Total	**44**	**36**	**80**

81. The full budget amount of $51,042,000 ($58,387,600 gross) under posts would provide for the establishment and continuation up to the end of the project of a dedicated core project team consisting of 80 temporary posts: 44 temporary posts converted from current general temporary assistance resources (1 D-2, 6 D-1, 12 P-5, 13 P-4, 5 P-3 and 7 General Service (Other level)) and 36 new temporary posts being proposed to be established from the biennium 2010-2011 (5 P-5, 22 P-4, 3 P-3, 1 P-2/1, 1 General Service (Principal level), 4 General Service (Other level) (see also para. 93 below).

Subject matter experts

82. The Committee was informed that subject matter experts are required to work on a temporary basis with the core project team and the systems integrators to assist in system design, data conversion, interface development, report generation and testing of ERP. In addition, the subject matter experts will have a key role to play in training and supporting users during deployment and the post-deployment period. The Secretary-General emphasizes that the active participation of subject matter experts, who have an in-depth knowledge of their functional areas and the requirements of their departments/offices, is essential to ensure that ERP covers the required functionalities and that it is accepted by the business owners and the Organization. In view of the fact that the tasks to be performed are both complex and labour intensive, additional resources are requested to allow business owners from duty stations worldwide to employ limited replacements while their subject matter experts work with the ERP team during the build and implementation phases of the ERP project. The Committee was informed that the positions of the subject matter experts would be filled on a temporary basis if their continuous absence from their regular functions exceeded four weeks, and that without such a provision, there was a risk that managers would refuse to release subject matter experts.

83. It is estimated that 66 subject matter experts would be required during the various phases of the project for each of the following five activities: review and validation of training materials and desk procedures; integration testing; user acceptance testing; training of trainers; and training of users. The full budget amount of $38,880,000 under other staff costs would provide for general temporary assistance from 2010 to the end of the project for 66 subject matter experts for 3,390 months at an average cost of $11,470 per month, estimated on the basis of the average of a P-4 and General Service (Other level) net base salary using the 2010 standard staff costs.

84. **The Committee recognizes the importance of ensuring the participation of the Organization's most knowledgeable staff in the design and implementation of the Organization's new operating model and of developing in-house expertise and knowledge of ERP in order to support the system after deployment.**

Training/change management

85. The Secretary-General indicates that the experience of other entities that have implemented ERP systems shows that the train-the-trainer approach is not as effective as instructor-led training. He states that, while the train-the-trainer approach may require lower resources initially, it has been shown to be more costly in the longer term, since it entails additional support costs and retraining. The full budget amount of $24,582,700 under travel of staff includes a provision of

$11,163,900 for pilot deployment and $13,418,800 for instructor-led training on-site at a significant number of locations. Upon enquiry, the Committee was informed that the pilot deployment sites (an Economic Commission and a peacekeeping operation) would require considerable "hands-on" support and attention from the project team members and subject matter experts, both before and after the transition to ERP and, furthermore, that additional support would be required to support and stabilize the system on-site. **The Committee emphasizes that every effort should be made to ensure the cost-effectiveness of the training strategy and training methods developed. It further requests the Secretary-General to ensure close coordination between the ERP and IPSAS project teams, with a view to seeking synergies and coordinating the development and delivery of training modules. The Committee also stresses the need to keep the ERP training plan under review and to adjust requirements in the light of experience and lessons learned, so as to ensure the most efficient utilization of resources. Close attention should also be paid to ensuring that the ERP training is developed in a manner that is consistent with the training programme of the Secretariat.**

Customization

86. In paragraph 117 of his report, the Secretary-General indicates that no customizations to the core ERP system have yet been identified. **The Committee recalls General Assembly resolution 63/262 (sect. II, para. 12), in which the Secretary-General was requested to limit customization of the ERP software to the extent feasible in order to ensure cost-effectiveness as well as flexibility in upgrading to new versions of the software, and to report on any necessary customization and its budgetary implications, with full justification of rationale and cost.**

Future operating costs

87. The Secretary-General discusses future operating costs in paragraphs 112 to 114 of his report, but does not provide any estimates. He states that, pending the completion of the design phase and negotiations for the acquisition of ERP software, it is not possible to forecast all future operating costs with reasonable accuracy. He expects to provide those forecasts at the sixty-fifth session of the General Assembly. The Committee considers that an estimate of future operating costs is an essential input for informed decision-making on the Secretary-General's proposals for the implementation of ERP. While the Committee recognizes that the Secretary-General is not in a position to provide an accurate estimate, it considers that he should be able to provide a range of future operating costs, taking into account the experience of other entities that have implemented ERP systems, as well as estimates of the cost of the elements enumerated in paragraph 112 of his report. **Accordingly, the Committee requests that an estimate of a range of future operating costs be provided to the General Assembly at the time of its consideration of this item.**

Global benchmarks for ERP implementation costs

88. Upon enquiry, the Committee was informed that global benchmarks for ERP costs[4] ranged widely, between $5,000 and $20,000 per user, depending on factors

[4] On the basis of combined metrics from PricewaterhouseCoopers, Deloitte, Forrester, Aberdeen Group, Panorama Consulting Group, META Group and CTS.

such as organizational readiness, current process quality and integration, current integration of systems, geographical complexity and functional complexity. The costs took into account the composition of the users of the system, assuming a blend of high-intensity users such as clerical staff, medium-intensity users such as managers and self-service users (the majority of staff, retrieving/updating their own information) and information technology staff. The lower end of the range applied to relatively simple ERP implementations in environments in which little or no re-engineering of processes was required, the existing processes were already running at full efficiency, the systems were already integrated, there was little complexity in conversion from the old to the new system, there was high organizational readiness and a single or small number of geographical areas were to be considered. The higher end of the range applied to the most challenging implementations, with low readiness and a high level of diversity and complexity.

89. The Secretary-General indicated that the United Nations project was considered to be at an above-average level of complexity with a medium to good level of readiness, to which a benchmark figure of between $10,000 and $12,000 per user would be applicable, with some 43,000 users worldwide. Accordingly, the expected benchmark cost of ERP would range between $430 million and $516 million, which corresponds closely with the figures given on the deployment options tables in the Secretary-General's report (A/64/380, tables 3 and 4). The Committee was informed that this further demonstrates the cost-effectiveness of the "pilot first" option, which would represent a cost of approximately $7,400 per user.

Maintenance of legacy systems

90. In its report on the proposed programme budget for 2010-2011, the Committee had recommended that further improvements to the systems that are to be replaced by ERP, such as IMIS, should be kept to the required minimum. Upon enquiry, the Committee was informed that requests for changes to legacy systems were monitored by the Office of Information and Communications Technology and that, in principle, only enhancements relating to statutory requirements, for example the recently mandated change to the human resources contractual policy, were approved. The Committee was further informed that staff supporting legacy systems would be required to contribute their experience and skills to the ERP project for the accomplishment of activities such as data cleansing, data conversion, and interface analysis and development, and that their degree of involvement in the ERP project was largely dependent on the reduction or elimination of requests for enhancing legacy systems. **The Committee reiterates its recommendation that such enhancements be kept to the required minimum. It also emphasizes the need to involve staff with knowledge of existing systems in the ERP project, so as to further develop in-house expertise and capacity to support the ERP system.**

G. Resource requirements for 2010-2011

91. The overall requirements for the ERP project for the biennium 2010-2011 amount to $175,348,200, comprising $24,192,200 funded from the regular budget, $114,065,900 from the peacekeeping support account and $37,090,100 from extrabudgetary funds.

92. The Committee recalls that, in the proposed programme budget for the biennium 2010-2011 for section 28 A, Office of the Under-Secretary-General for Management (A/64/6 (Sect. 28A)), the Secretary-General proposed a provision of $11,775,900 under grants and contributions to cover the regular budget share of the 2010-2011 estimated total costs of the ERP project amounting to $78,506,000, based on the cost-sharing formula detailed in document A/62/510/Rev.1 and endorsed by the General Assembly in its resolution 63/262. In that report, the Secretary-General also indicated that preliminary estimates of the total gross budget of the project for the biennium 2010-2011 might amount to approximately $186 million, with the regular budget share amounting to $28 million, or some $16.2 million in addition to the amount estimated in that document.

Posts

93. A provision of $22,729,900 is proposed under posts for the ERP project team, including the conversion of general temporary assistance positions to 44 temporary posts and the establishment of 36 new temporary posts. The Committee was informed that the 44 posts proposed for conversion from general temporary assistance to temporary posts are costed at the standard continuing rate for posts (a 6.5 per cent vacancy factor for Professional posts and a 3.5 per cent vacancy factor for General Service posts), whereas the 36 additional temporary posts proposed for establishment are costed at the standard rate for new posts (a 50 per cent vacancy factor for Professional posts and a 35 per cent vacancy factor for General Service posts) (see also para. 81 above).

94. The 36 new temporary posts (5 P-5, 22 P-4, 3 P-3, 1 P-2/1, 1 General Service (Principal level), 4 General Service (Other level)) are required for project management, organizational change management, technology management and the ERP functional teams, as follows:

(a) *Project management*. In addition to the three general temporary assistance positions proposed for conversion to temporary posts for administrative management (1 P-5 Administrative Officer, 1 P-4 Contracts Officer and 1 General Service (Other level) Administrative Assistant), four additional temporary posts are proposed in the areas of budget, finance, human resources, general administration and procurement, as follows:

- 2 P-4 posts
- 2 General Service (Other level) posts

(b) *Organizational change management*. In addition to the three existing general temporary assistance positions now proposed as temporary posts for change management (1 P-5 Change Management Officer, 1 P-3 Communications manager and 1 General Service (Other level) Change Management Expert), three new temporary posts are requested to address expanded staff training requirements as a result of the decision to adopt instructor-led training, which has increased the number of training classes and workshops that are required to be organized:

- 1 P-3 for training management
- 1 General Service (Principal level) for training coordination
- 1 General Service (Other level) for events planning

(c) *Technology management*. Technology management encompasses functions for the definition of the enterprise-wide information and communications architecture, setting technical standards, projecting enterprise-wide ERP needs, evaluating the suitability of infrastructure operations and identifying gaps between existing infrastructure and ERP requirements. It is proposed to strengthen internal technology management capacity and to increase the number of internal specialists in ERP, who would gain cumulative knowledge that would be retained by the United Nations and also reduce the reliance placed on outsourced services. In addition to two general temporary assistance positions proposed for conversion to temporary posts (1 D-1 to oversee the technology management function and 1 P-5 Technology Infrastructure Specialist), a further 16 temporary posts (4 P-5 and 12 P-4) are proposed as follows:

- 4 P-5 Technical Architect posts for: solutions; infrastructure; business intelligence/data conversion; and user interface, portal and mobile technology
- 5 P-4 Technical Architect posts to serve as liaison for each functional area
- 7 P-4 Architect posts for master data management, security, reporting, portal solutions and workflow, mobile technology and forms, and web 2.0 solutions

(d) *Functional teams*. In addition to the 32 general temporary assistance positions proposed for conversion to temporary posts for the four functional teams, comprising eight posts for each team, 12 new temporary posts are proposed as follows:

- *Finance and Budget Team*. 4 P-4 posts for the management of the strategic framework life cycle, assets accounting, and accounts payable and receivable
- *Supply Chain Team*. A dedicated 1 P-5 for planning and demand forecasting because the supply chain is new to the Organization and 1 P-4 for receipt, warehousing, transportation and distribution of supply
- *Human Resources Team*. 1 P-2 for coordination with the Talent Management Team concerning on-boarding, position management, performance management and learning management, and the new pension system, and 1 General Service (Other level) for information management and document support assistance to the team
- *Central Support Services*. 1 P-5 for the design of the Organization's strategic framework and for project management, 1 P-4 for planning and trust and grant management, 1 P-4 for information management and 1 P-3 as a technical integration specialist

The Committee recommends that the Secretary-General be requested to provide, in his next progress report, a plan for the downsizing of the project team upon completion of the ERP project and its implementation activities.

Other staff costs

95. An amount of $19,440,000 is proposed to provide for 1,695 work months of temporary assistance at an average cost of $11,470 a month, related to the cost of the temporary filling of positions of subject matter experts while they are assigned to the ERP project. The subject matter experts are required in the design, build and implementation phases of the project to participate and provide assistance in a

variety of activities, including reviewing and validating training materials and desk procedures, performing integration testing, conducting user acceptance testing, training users and providing support during deployment.

Consultants

96. An amount of $3,331,200, comprising fees ($3,196,800) and travel costs ($134,400), is proposed for 288 work months of specialized expertise at a cost of $11,100 a month and a one-time travel cost of $11,000 for each of 12 consultants. The provision would provide for specialized expertise not available in the Organization, outside the scope of the systems integration contract, in the area of change management, in technical areas, including mobile technology, report design and implementation, data warehousing and business intelligence, and in functional areas, including travel, central services, field operations and logistics, payroll, budgeting and planning, as well as management consultants to cross-check the project management services provided by the main contractor/systems integrator.

Travel of staff

97. The proposed resource requirements in 2010-2011 of $7,446,800 would enable the ERP team to undertake travel assignments to support pilot project deployment ($4,620,000), conduct change management, technical and Project Management Office missions ($490,000) and conduct a training workshop ($1,868,800).

Contractual services

98. A provision of $89,098,600 is proposed for contractual services for systems integration ($86,396,900); legal expertise ($266,700) to assist during the negotiation of contractual terms and conditions of the licensing and maintenance agreement for the software and systems integration services; technical research and independent advice ($168,600) to evaluate recommendations provided by the systems integration service provider; strategic consulting on the overall project management ($1,771,200); training services ($434,400) related to the initial assessment of training needs, including the setting up of training standards, model course content and timelines, as well as the delivery of training to end users; and training facilities ($60,800) in locations where these are not available.

General operating expenses

99. The estimated requirement of $11,625,700 is proposed for operating costs related to approximately 218 persons (80 core staff, 66 subject matter experts, 12 consultants and 60 staff of the systems integration contractor), as appropriate, including (a) rental of premises ($6,234,800) and alterations to premises ($3,944,300); (b) communications ($921,000); and (c) maintenance of office automation equipment ($525,600) in connection with the 80 core posts and subject matter experts.

Supplies and materials

100. An estimated requirement of $146,000, based on standard costs, is proposed to provide for stationery and office supplies in support of the project.

Furniture and equipment

101. The amount of $21,530,000 is proposed to cover the costs related to the non-recurrent acquisition of office furniture ($1,670,000) and office automation equipment ($147,000) for the proposed 36 new temporary posts. Further, resources are required for the acquisition of computer hardware to build the development platform ($4,000,000), and for software licences and core software customization ($15,713,000).

H. Conclusions and recommendations

102. **While recommending acceptance of the Secretary-General's proposals, the Committee notes that a significant portion is based on estimates, since contracts for the systems integration services have not yet been concluded. The Committee recommends that the Secretary-General be requested to make every effort to reduce the overall costs of the project and to exercise prudence in the utilization of resources. The Secretary-General should also be requested to provide, in future annual progress reports, full details on the efforts made to contain costs, as well as project expenditures incurred and justifications for the utilization of resources (see para. 72 above).**

103. **In paragraph 130 of his report (A/64/380), the Secretary-General sets out a series of requests to the General Assembly. The Committee's recommendations are as follows:**

(a) **The Committee recommends that the General Assembly note the proposals and approach described in the Secretary-General's report for the replacement of the IMIS system and related ancillary systems in all offices of the United Nations Secretariat, including offices away from Headquarters, regional commissions, peacekeeping and political missions, and other field missions;**

(b) **The Committee recommends that the General Assembly note the overall cost of the ERP project to be completed during the period 2008-2013, at a total project budget estimate of $323,137,900 gross ($315,792,300 net) (at current rates);**

Regular budget

(c) **The Committee recommends that the General Assembly approve a gross amount of $24,652,900 under grants and contributions (a net amount of $24,192,200) inclusive of the amount of $11,775,900 already proposed in document A/64/6 (Sect. 28) under section 28 A, Office of the Under-Secretary-General for Management, of the proposed programme budget for the biennium 2010-2011;**

(d) **The Committee recommends that the General Assembly note that the future remaining requirements in the estimated amount of $18,667,600 gross ($18,066,600 net) for the implementation of ERP would be considered in the context of the proposed programme budget for the relevant biennium;**

Support account for peacekeeping operations

(e) The Committee recommends that the General Assembly approve a total amount of $29,059,500 gross ($28,516,500 net) to be financed from the support account for peacekeeping operations for the period from 1 July 2009 to 30 June 2010 to meet the requirements of ERP as contained in the present report;

(f) The Committee recommends that the General Assembly note that the future remaining requirements in the estimated amount of $87,178,400 gross ($85,549,400 net) will be included in subsequent proposed support account requirements for the financial periods from 1 July 2010 until December 2011;

(g) The Committee recommends that the General Assembly note that the future remaining requirements in the estimated amount of $77,159,500 gross ($74,675,300 net) will be included in subsequent proposed support account requirements for the financial periods until 2013;

Extrabudgetary resources

(h) The Committee recommends that the General Assembly note that an estimated amount of $72,632,200 of the total ERP project cost would be financed from extrabudgetary resources.

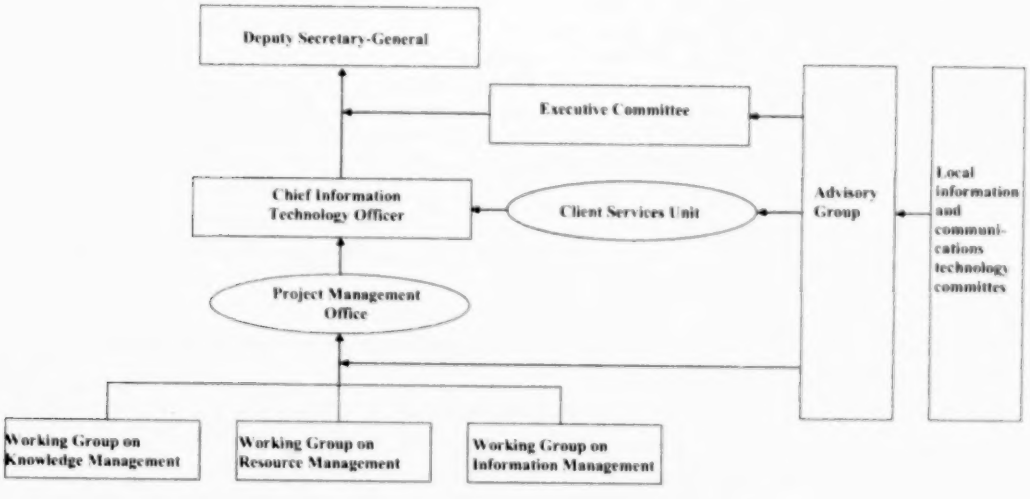
Annex I

Update on the status of implementation of the information and communications technology management framework and changes to the Office of Information and Communications Technology governance structures since the submission of document A/62/793

1. The information and communications technology management framework presented in document A/62/793 was simplified in response to concerns expressed by the Advisory Committee on Administrative and Budgetary Questions and the Fifth Committee, primarily through the elimination of the high-level programme steering committees. The main elements of the modified information and communications technology management framework for the Secretariat are as follows: (a) the Information and Communications Technology Executive Committee; (b) the Information and Communications Technology Advisory Group; (c) information and communications technology programme working groups; and (d) local information and communications technology committees.

2. The roles and responsibilities of these bodies, as well as their relationships among each other and with the Office of Information and Communications Technology are described in the paragraphs below.

Information and communications technology management framework for the United Nations Secretariat



Information and Communications Technology Executive Committee

3. The Information and Communications Technology Executive Committee, the highest-level decision-making body on major information and communications technology matters, decides overall information and communications technology strategy and priorities. The committee is chaired by the Deputy Secretary-General

and comprises senior managers at the Under-Secretary-General level from substantive and support areas,[a] as well as the Chief Information Technology Officer as an ex officio member. The committee meets on a quarterly basis to review Information and Communications Technology strategy and programme performance and to determine the Information and Communications Technology investment portfolio as needed. The Chief Information Technology Officer, however, reports directly to the Deputy Secretary-General on operational Information and Communications Technology matters.

Information and Communications Technology Advisory Group

4. In order to provide appropriate advice and inputs for information and communications technology investments, a Secretariat-wide Information and Communications Technology Advisory Group is established and made up of D-1/D-2 level staff representing each department and office. The Advisory Group provides feedback to the Chief Information Technology Officer on information and communications technology programmes and services via the Client Services Unit of the Office of Information and Communications Technology. Members of the Advisory Group will also receive periodic briefings from the Office of Information and Communications Technology on major information and communications technology matters. The Information and Communications Technology Advisory Group may provide its views to the Information and Communications Technology Executive Committee and the information and communications technology working groups as needed.

Information and Communications Technology Programme working groups

5. Information and Communications Technology Programme working groups guide the three strategic programmes in knowledge management, resource management and infrastructure management. The head of each corresponding functional area within the Office of Information and Communications Technology chairs each working group. Members represent senior technical experts within each functional area from across the Secretariat. All major strategic programme investments and projects, including major changes in scope and proposed spending for ongoing initiatives, are subject to review by the working groups. The groups provide portfolio and project recommendations to the Chief Information Technology Officer via the Project Management Office of the Office of Information and Communications Technology.

Information and Communications Technology Programme Working Group on Knowledge Management

6. The Information and Communications Technology Programme Working Group on Knowledge Management provides strategic direction, reviews proposed information and communications technology investments and monitors programme and project status to ensure retention of institutional knowledge and to support

[a] Department of Public Information, United Nations Office at Vienna/United Nations Office on Drugs and Crime, Office for the Coordination of Humanitarian Affairs, Department of Management, Department of Field Support, Office of Legal Affairs, United Nations Office at Geneva, Department of Economic and Social Affairs, Department for General Assembly and Conference Management, Department of Safety and Security, United Nations Office at Nairobi, Economic and Social Commission for Asia and the Pacific.

organizational innovation. Its decision-making scope includes the entirety of knowledge management activities in the Secretariat.

Information and Communications Technology Programme Working Group on Resource Management

7. The Information and Communications Technology Programme Working Group on Resource Management provides strategic direction, reviews proposed information and communications technology investments and monitors programme and project status to ensure improvement in the Secretariat's capabilities in managing human, financial and other resources. Its decision-making scope includes the entirety of resource management activities in the Secretariat.

Information and Communications Technology Programme Working Group on Infrastructure Management

8. The Information and Communications Technology Programme Working Group on Infrastructure Management provides strategic direction, reviews proposed information and communications technology investments and monitors programme and project status to ensure improvement in the Secretariat's information and communications technology infrastructure. Its decision-making scope includes the entirety of infrastructure management activities in the Secretariat.

Local information and communications technology committees

9. Local information and communications technology committees should be established in each department and office to ensure that local information and communications technology priorities are aligned with the Secretariat-wide information and communications technology strategy. They should ensure appropriate usage of information and communications technology resources at the department and office level by reviewing and approving project ideas, proposals and major service requests prior to submission to the Office of Information and Communications Technology. The head of each local information and communications technology committee will participate in the Information and Communications Technology Advisory Group. The client services officer assigned to each department will also be able to provide input and will act as a liaison with the Office of Information and Communications Technology.

Annex II

Benefits expected from the implementation of enterprise content management

Qualitative benefits from the implementation of enterprise content management are expected in terms of increased organizational effectiveness in the Secretariat:

- Enhanced accountability and transparency
- Improved monitoring, control, auditing, tracking of information management activities in delivering substantive programmes
- More accurate and informed analysis, leading to better decision-making by substantive and administrative groups, enabling the United Nations to better achieve its primary goals
- A greener Secretariat with the implementation of paperless processes
- Improved knowledge-sharing among departments
- Better sharing of information and collaboration with non-governmental organizations and Member States
- Increased training capabilities
- Improved compliance with United Nations policies and standards (in the areas of information security, electronic signatures, document classification and metadata, and document retention and disposal policy)

Quantitative benefits from the implementation of enterprise content management can be measured in terms of the following types of productivity gains and cost savings:

- 50 per cent reduction in searching, retrieving and filing
- 25 per cent reduction in time spent photocopying
- 75 per cent reduction in off-site storage and storage labour
- 20 per cent reduction in workflow inefficiencies
- 10 per cent reduction in on-site storage space
- 25 per cent reduction in shipping costs and supplies
- 25 per cent reduction in office machines and photocopying

On the basis of an assumption that an average of 5 per cent of staff time at all levels is spent on searching for information, and that there is a user population of 10,000 Secretariat staff, the implementation of enterprise content management will result in overall productivity gains equivalent to approximately 250 person-years.[a]

[a] If only half of these were to result in the elimination of the equivalent number of posts, on the basis of a $120,000 per year salary (at the P-3 level), the dollar amount saved would be $15,000,000.

The industry benchmark on the implementation of enterprise content management shows the following:[b]

- Companies spend $20 in labour to file a document, $120 in labour to find a misfiled document, $220 in labour to reproduce a lost document[c]
- 7.5 per cent of all documents get lost and 3 per cent of the remainder get misfiled
- Professionals spend 5 to 15 per cent of their time reading information, but from 20[d] to 50 per cent[e] looking for it
- The average document is photocopied 19 times
- Users send and receive an average of 133 e-mail messages per day[f]
- The cost of office space has increased by 19 per cent[g]
- The replacement of 200 filing cabinets with digital storage generated a $300,000 savings in storage costs[h]

[b] "10 Fast Facts About Document Management Value" 27 October 2008: http://aiim.typepad.com/aiim_blog/2008/10/10-fast-facts-a.html.

[c] John Mancini, AIIM, 2009, http://aiim.typepad.com/aiim_blog/2009/05/management-ecm-excuse-3-weve-got-to-pick-our-battles-.html.

[d] According to a January 2007 Accenture online survey conducted in large companies in the United States and the United Kingdom, "managers spend up to three hours a day searching for information, and more than 50 per cent of the information they obtain has no value to them".

[e] http://andrewonedegree.wordpress.com/?s=ECM+Savings.

[f] Radicati Group.

[g] *Office Space Across the World 2008*.

[h] "Measuring ECM Success", July 2009, at www.dpsmagazine.com/Content/ContentCT.asp?P=573.

Annex III

Summary of resources approved

ECM/CRM/DRBC

GA resolution	Date	Related reports	Total resources approved by GA	Regular budget 2008-2009	Support account 2009/10	Extrabudgetary	CMP	Remarks
ECM								
A/63/262	24/12/2008	A/62/510 Rev.1 A/63/487	2 000 000	2 000 000	0	0	0	$2,000,000 approved from the regular budget to be met from within the existing appropriation for 2008-2009
A/63/287	30/06/2009	A/63/767	6 645 200	0	6 645 200	0	0	$6,645,200 under information technology
			136 400		136 400			$136,400 under general temporary assistance for 1 P-3
Total ECM			**8 781 600**	**2 000 000**	**6 781 600**	**0**	**0**	
CRM								
A/63/287	30/06/2009	A/63/767	4 029 500	0	4 029 500	0	0	$4,029,500 under information technology
			331 400		331 400			$331,400 under general temporary assistance for 1 P-5 and 1 P-3 position
Total CRM			**4 360 900**	**0**	**4 360 900**	**0**	**0**	
DRBC								
A/63/262	24/12/2008	A/62/510 Rev.1 A/63/487	11 074 600	7 145 500 2 500 00	1 429 100	0	0	$7,145,500 and $1,429,100 approved for the North Lawn primary data centre. $2,500,000 approved for provision of DRBC at Headquarters and offices away from Headquarters
A/63/269	07/04/2009	A/63/743 A/63/774	7 128 740	0	2 031 860	0	5 096 880	A total of $7,128,740 approved for the secondary data centre The regular budget share of $5,096,880 is to be funded from within the CMP budget
Total DRBC			**18 203 340**	**9 645 500**	**3 460 960**	**0**	**5 096 880**	

(Footnotes on following page.)

(Footnotes to table)

Notes:

ECM-CRM

The General Assembly approved $2,000,000 for ECM, under the regular budget to be met from within the existing appropriation for 2008-2009.

The support account figure for CRM and ECM projects represents resources for information technology approved by the General Assembly in the context of the 2009/10 support budget (63/767), namely $10,674,700, including, $4,029,500 for CRM and $6,645,200 for ECM.

Resources for general temporary assistance associated with CRM and ECM projects, funded from the support account, were approved in addition to information technology by the General Assembly in the context of the 2009/10 support budget (63/767): CRM 1 P-5 $195,000 and 1 P-3 $136,400; ECM 1 P-3 $136,400.

A 5 per cent reduction in the resources proposed for information technology was approved by the General Assembly, to be utilized by the Office of Information and Communications Technology at its own discretion, taking into account the relative priorities of the different projects (63/841, para. 199).

DRBC

The Secretary-General was requested to meet the regular budget share for the North Lawn data centre ($7,145,500) and $2,500,000 for DRBC at Headquarters and offices away from Headquarters from within the existing appropriation for 2008-2009. The regular budget share for the secondary data centre ($5,096,880) is to be funded from within the CMP budget. The breakdown of the funding of the secondary data centre is shown in table 2 of document A/64/346/Add.1.

Abbreviations: ECM, enterprise content management; CRM, customer relationship management; DRBC, disaster recovery and business continuity; CMP, capital master plan.

Annex IV

Benefits expected from the implementation of customer relationship management

1. The beneficiaries of a customer relationship management system include:

   (a) Service recipients, who will be able to:

   - Request any type of service, through a variety of channels including telephone, e-mail, fax or web
   - Monitor the status of all their requests

   (b) Service providers, who will be able to:

   - Manage service requests through the entire life cycle
   - Manage resources (workforce) efficiently in servicing requests
   - Manage the relationship with customers much better by proactively monitoring their own performance against previously established service-level agreements for service delivery

   (c) Management, who will be able to:

   - Improve oversight, through the use of data that is automatically captured as service requests are processed
   - Improve efficiency and effectiveness, by adjusting the deployment of resources to actual requirements

2. Customer relationship management benefits calculations are typically based on the number and processing of service requests, or tickets, distinguishing between the time saved by service recipients and service providers.

3. The tables below outline the benefits calculation based on the number of service tickets for the initial implementers of customer relationship management (information and communications technology and facilities service desks) at United Nations Headquarters and offices away from Headquarters and in all peacekeeping missions. Savings in time are monetized on the basis of an annual average salary of $90,000 for service requesters and $75,000 for service providers.

Savings for service recipients

	Low range estimate	*High range estimate*	*Calculation base*	*Yearly savings (rounded)*	
				Low range	*High range*
Time saved by entering ticket online	3 min	6 min	Ticket volume	$1 109 000	$2 219 000
Time saved by obtaining status updates online, 24/7	1 min	5 min	Ticket volume	$370 000	$1 849 000
Time saved due to elimination of tickets by enabling global alerts and notifications about service interruptions/outages	10 min/year	15 min/year	Service recipients volume	$644 000	$965 000

	Low range estimate	High range estimate	Calculation base	Yearly savings (rounded)	
				Low range	High range
Time saved by replacing manual forms with electronic forms and workflows in requests for service	6 min	15 min	Ticket volume	$1 109 000	$2 773 000
Time saved by eliminating tickets through self-resolution, due to the availability of frequently asked questions and knowledge base	20% of issues eliminated	30% of issues eliminated	Average time for ticket creation, and ticket volume	$370 000	$555 000
Total savings for service recipients				**$3 602 000**	**$8 360 000**

Savings for service providers

	Low range estimate	High range estimate	Calculation base	Yearly savings (rounded)	
				Low range	High range
Reduced number of tickets by introducing self-service and knowledge base (self-resolution)	20% reduction	30% reduction	Average time for ticket creation, and ticket volume	$559 000	$839 000
Time saved by eliminating calls/ e-mails on status update or follow-up from service recipients	4 min	7 min	Ticket volume	$994 000	$1 739 000
Time saved due to automation of forms and online approvals by automatic ticket creation	2 min	4 min	Ticket volume	$621 000	$1 242 000
Total savings for service providers				**$2 174 000**	**$3 820 000**

4. Annual savings of between $5,776,000 and $12,180,000 are expected three months after customer relationship management is fully deployed for information and communications technology and facilities services at Headquarters and offices away from Headquarters and for information and communications technology in all peacekeeping missions. Further savings would accrue if other service desks were to be migrated to the common customer relationship management platform.

5. On the basis of the calculations in the tables above, the savings from the initial deployment of customer relationship management to information and communications technology service desks in the Office of Information and Communications Technology and the Department of Field Support at United Nations Headquarters, the United Nations Logistics Base at Brindisi, the United Nations Mission in Liberia, the United Nations Interim Force in Lebanon, the United Nations Stabilization Mission in Haiti and the facilities service desk at Headquarters are expected to range between $1,784,000 and $3,703,000 per year. If customer relationship management is deployed to information and communications technology service desks in five offices away from Headquarters, the yearly savings would increase to between $3,973,000 and $8,398,000 per year. The estimated savings would be between $4,102,000 and $9,226,000 if customer relationship management is implemented in information and communications technology service desks in all seven offices away from Headquarters in 2012-2013.

Annex V

Major functional areas of the ERP system and associated functions

In the table below, where ERP is listed, it is the intention at this stage for ERP to provide all the elements mentioned. However this can only be confirmed after the design phase and the scope would also be contingent on the necessary resources being provided.

Functional area	*Function*	*To be provided through:*
CSS	**Travel management**: planning, requesting, amendments, visas, travel entitlement and claims	ERP
CSS	**Services to the public and staff**: this function is an income-generating process. A portion of the income generated is returned to the Member States. Commercial activities include: • Postal services: create and market stamps and other philatelic collectables • Publications: sales and distribution of United Nations reports and other published materials • Gift centre and newsstand: revenue generated by the sale of gifts, souvenirs, newspapers, magazines and sundries at the United Nations premises • Catering services: revenue generated by the provision of food services to United Nations staff, delegates and visitors • Guided tours: organized for visitors to visit the United Nations building and learn about the United Nations mission and activities • Others that apply to specific duty stations: commissary, recreation centre and fuel station (UNON), training courses for the general public (ECLAC) • Garage management: revenue generated by the use of United Nations parking places by staff members, missions and delegates	ERP

Functional area	*Function*	*To be provided through:*
CSS	**Real estate management**	ERP and CRM
	• Building maintenance: preventive and corrective maintenance	
	• Construction management: architectural and engineering projects	
	• Office space management: requests for office space, movement of office furniture and relocation of people	
	• Lease agreements	
	• Billing of tenants	
CSS	**Facilities management**: work order management including information and communications technology services	ERP and CRM
CSS	**Conference and events management**:	ERP and eMeets
	Conference/event management services are a strategic customer-centric business process that provides meeting and documentation services to all the meetings/events held at Headquarters, offices away from Headquarters and field missions. It focuses on three main planning and delivery services: conference/event planning and coordination services, interpretation and meeting services, and documentation planning and processing services	
CSS	**Programme and project management**:	ERP
	This function will cover programmes and projects managed and administered by the United Nations Secretariat regardless of budget (regular budget, extrabudgetary, trust funds, general trust funds, income)	
CSS	**Archives and records management**:	ERP and ECM
	Archives and records management provides a number of records-centric services for the United Nations Secretariat, the General Assembly and the general public. These services include:	
	• Consultation and guidance on records management for United Nations offices	
	• Records storage and retrieval for the General Assembly, Member States, Secretariat offices, and other United Nations organs, as well as Research services for the general public	
HR	**Recruitment/staffing**	Inspira (talent management)

Functional area	*Function*	*To be provided through:*
HR	**Performance management**	Inspira (talent management)
HR	**Learning management**	Inspira (talent management)
HR	**Personnel administration** (on-boarding, contract management, movement of staff, separation, entitlements and insurance)	ERP and Inspira
HR	**Time management**	ERP
HR	**Position management** (the detailed design is in progress and discussions are continuing with the Inspira team) The initial ERP design for position management provides for the following: • Creation/maintenance of positions and integration for budget preparation (ERP) • Selection of an applicant/staff (Inspira) • On-boarding against the position, maintenance of the relation between staff and position and integration with budget execution (ERP) • Staffing table maintenance and reporting (ERP)	ERP and Inspira
HR	**Payroll**	ERP
SCPL	**Plan and manage**: includes processes related to demand planning and forecasting, supply network planning and force planning	ERP
SCPL	**Source to acquire**: includes processes related to strategic sourcing, supplier collaboration, requisition to purchase order, low-value acquisitions and contract management	ERP
SCPL	**Receive to distribute**: includes processes related to inbound and outbound processing of goods, planning and dispatching goods and services, warehouse and inventory management, force deployment and interfaces with specialist logistics (e.g. fuel management, medical services, rations management and air transport management) • Peacekeeping troop contingent-owned equipment verification (ERP and CRM) • Fuel management (ERP) • Rations management (ERP) • Air transport management (ERP)	ERP and CRM

Functional area	*Function*	*To be provided through:*
SCPL	**Employ to dispose**: includes processes related to kit assembly and execution, equipment assignment, maintenance through to decommission and disposal, ensuring all environment health and safety requirements are adhered to	ERP
FIN	**Strategic enterprise planning**: strategy management, programme planning, results-based budgeting/results-based management	ERP
FIN	**Budgeting**: project and programme budgeting for all stages of the programme execution cycle	ERP
FIN	**Budget execution**: deployment, redeployment and monitoring of funds and performance reporting	ERP
FIN	**Trust fund and project management**: resource mobilization, project pipeline funding, contributions management, project financial management, donor reporting	ERP and CRM
FIN	**Accounts payable**: end-to-end payment cycle, including verification, scheduling and integration with treasury; this area also covers inter-agency transactions	ERP
FIN	**Accounts receivable**: end-to-end receivables cycle, including assessments, billing, credit management and recoveries; this area also covers inter-agency transactions	ERP
FIN	**Treasury**: cash management, cash-flow management, bank management and investment management	ERP
FIN	**Asset management**: end-to-end asset financial cycle, including valuation, depreciation, disposal and special assets, such as leases and donations and contingent-owned equipment	ERP
FIN	**General ledger accounting and consolidations**: accounting entries, cost recoveries and allocations, segment reporting and consolidations	ERP

Abbreviations: CSS, central supply services; HR, human resources; SPCL, supply chain/procurement/logistics; FIN, finance and budget; ERP, enterprise resource planning; UNON, United Nations Office at Nairobi; ECLAC, Economic Commission for Latin America and the Caribbean; CRM, customer relationship management.

Annex VI

Indicative summary of net resource requirements for enterprise resource planning by object of expenditure under each source of funds

(Thousands of United States dollars)

	Regular budget				*Peacekeeping support account*				*Extrabudgetary*				
	2008-2009	*2010-2011*	*To end of project 2013*	*Subtotal*	*1 July 2008 to 30 June 2009*	*1 July 2009 to 31 December 2011*	*2012 to end of project*	*Subtotal*	*2008-2009*	*2010-2011*	*To end of project 2013*	*Subtotal*	*Total*
Posts	—	3 136.0	4 246.8	7 382.8	—	14 786.0	17 553.5	32 339.5	—	4 807.9	6 511.8	11 319.7	51 042.0
Other staff costs	2 272.2	2 682.1	2 916.0	7 870.3	3 134.9	12 645.9	12 052.7	27 833.6	3 486.2	4 112.0	4 471.2	12 069.3	47 773.2
Travel of staff	273.7	459.6	2 409.7	3 710.8	377.6	4 844.2	9 960.1	15 181.9	419.9	1 575.2	3 694.9	5 690.0	24 582.7
Consultants and experts	—	1 027.4	499.7	959.3	—	2 167.0	2 065.4	4 232.4	—	704.6	766.2	1 470.8	6 662.4
Contractual services	1 998.2	12 292.6	4 737.8	19 028.7	2 756.8	57 959.6	19 583.1	80 299.4	3 065.8	18 846.4	7 264.7	29 176.8	128 505.0
General operating expenses	328.3	1 604.0	1 152.2	3 084.5	453.0	7 562.6	4 762.5	12 778.1	503.7	2 459.1	1 766.7	4 729.5	20 592.1
Supplies and materials	6.0	20.1	21.9	48.0	8.3	95.0	90.5	193.8	9.2	30.9	33.6	73.7	315.5
Furniture and equipment	231.5	2 970.4	2 082.5	5 284.4	319.4	14 005.5	8 607.5	22 932.5	355.2	4 554.1	3 193.1	8 102.4	36 319.3
Total	**5 110.0**	**24 192.2**	**18 066.6**	**47 368.8**	**7 050.0**	**114 065.9**[a]	**74 675.3**	**195 791.2**	**7 840.0**	**37 090.1**	**27 702.1**	**72 632.2**	**315 792.3**

[a] The amount of $28,516,500 to be funded for the period from 1 July 2009 to 30 June 2010 and $85,549,400 to be funded for the period from 1 July 2010 to December 2011.